first and second non-return valves arranged in said piston for respectively providing a damping force for the rebound and compression directions of the vibration damper; and

a damping valve comprising a valve body and a valve seat defining a flow path therebetween, said damping valve being arranged in one of said piston and said piston rod having a variable damping action and arranged in series with each of said first and second non-return valves, thereby acting in both said rebound and compression directions of the vibration damper, wherein said damping valve in series with said first and second non-return valves comprise a sole passage for said damping medium through said piston between said two working spaces such that said damping fluid is required to flow through said flow path of said damping valve when damping fluid is exchanged between said two working spaces in the rebound and the compression directions of the vibration damper.

5. (Amended) The vibration damper of claim 2, wherein said actuator for said damping valve comprises an electromagnet.

10. (Amended) The vibration damper of claim 9, wherein said valve body is precontrollable to a precontrolled setting in one of said rebound and compression directions and directly controllable via an actuator in the other of said rebound and compression directions.